



101050776

500.41064X00

Go/CS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventors: HAMAMATSU, et al

U.S. Patent No.: 7,187,438

Issued: March 6, 2007

For: APPARATUS AND METHOD FOR INSPECTING DEFECTS

REQUEST FOR CERTIFICATE OF CORRECTION
UNDER 37 CFR 1.322

Mail Stop: Cert. of Correction (No Fee)
Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

June 21, 2007

Certificate
JUN 26 2007
of Correction

Sir:

In the above-identified patent, it is respectfully requested that a Certificate of Correction be issued to correct the front page of the patent, specifically, the assignee information as shown on the attached form PTO-1050.

It is respectfully requested that the assignee information be corrected.

The assignee information is listed as Hitachi, Ltd. and High-Electronics Corporation. The assignee information should be listed as Hitachi, Ltd. and Hitachi High Technologies Corporation.

In view of the foregoing, granting of the present request for Certificate of Correction is respectfully requested.

06/22/2007 SZEWDIE1 00000091 7187438

1

81 FC:1811

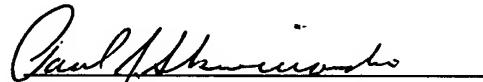
100.00 OP

JUN 26 2007

If any fees become due in connection with the filing of this Request, including fees due under 37 CFR 1.323, please charge such fees to the deposit account of Antonelli, Terry, Stout & Kraus, Deposit Account No. 01-2135 (Case: 520.41064X00).

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP



Paul J. Skwierawski
Registration No. 32,173

PJS/ayy
(703) 312-6600
Attachment

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. (Also Form P10-1050)

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO: 7,187,438

DATED: March 6, 2007

INVENTOR(S): HAMAMATSU, et al.

it is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(73) Assignees: Hitachi, Ltd., Tokyo (JP) and Hitachi High Technologies Corporation, Tokyo (JP)

MAILING ADDRESS OF SENDER:
Antonelli, Terry, Stout & Kraus, LLP
1300 North Seventeenth Street
Suite 1800
Arlington, VA 22209

PATENT NO. 7,187,438
No. of additional copies

JUN 26 2007



US007187438B2

(12) **United States Patent**
Hamamatsu et al.

(10) **Patent No.:** US 7,187,438 B2
(45) **Date of Patent:** Mar. 6, 2007

(54) **APPARATUS AND METHOD FOR
INSPECTING DEFECTS**

(75) **Inventors:** Akira Hamamatsu, Yokohama (JP);
Minori Noguchi, Mitsukaido (JP);
Yoshimasa Ooshima, Yokohama (JP);
Hidetoshi Nishiyama, Fujisawa (JP);
Tetsuya Watanabe, Honjyou (JP)

(73) **Assignees:** Hitachi, Ltd., Tokyo (JP); ~~Hitachi
High-Electronics Corporation, Tokyo
(JP)~~
~~Hitachi, High Technologies
Corporation, Tokyo (JP)~~

(*) **Notice:** Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 141 days.

(21) **Appl. No.:** 10/050,776

(22) **Filed:** Jan. 18, 2002

(65) **Prior Publication Data**

US 2002/0122174 A1 Sep. 5, 2002

(30) **Foreign Application Priority Data**

Mar. 1, 2001 (JP) 2001-056547

(51) **Int. Cl.**
G01N 21/00 (2006.01)

(52) **U.S. Cl.** 356/237.4; 356/237.2

(58) **Field of Classification Search** ... 356/237.1-237.5
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,903,342 A * 5/1999 Yatsugake et al. 356/237.4

6,104,481 A * 8/2000 Sekine et al.
6,657,736 B1 * 12/2003 Finarov et al. 356/625
6,798,504 B2 * 9/2004 Sato et al.
2001/0030296 A1 * 10/2001 Ishimaru et al. 250/559.4
2002/0186367 A1 * 12/2002 Eytan et al. 356/237.1

FOREIGN PATENT DOCUMENTS

| | | | |
|----|-----------|---|---------|
| JP | 03-102248 | * | 4/1991 |
| JP | 03-102249 | * | 4/1991 |
| JP | 4-152545 | * | 5/1992 |
| JP | 09-304289 | * | 11/1997 |
| JP | 11-142127 | * | 5/1999 |

* cited by examiner

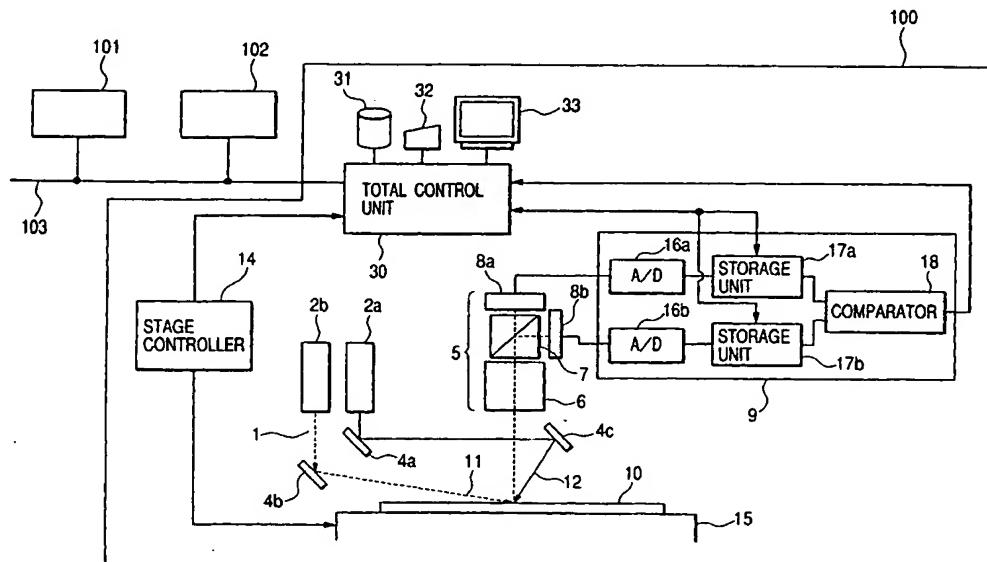
Primary Examiner—Michael P. Stafira

(74) **Attorney, Agent, or Firm**—Antonelli, Terry, Stout and Kraus, LLP.

(57) **ABSTRACT**

The present invention is characterized by the following: incident illumination and oblique illumination are performed on a scratch and a foreign material, which have been made on a surface of a polished or a ground insulating layer, with substantially the same luminous flux; and on the basis of a correlation such as a ratio of intensity of scattered light generated by the shallow scratch and the foreign material between the incident illumination and the oblique illumination, the shallow scratch is discriminated from the foreign material.

24 Claims, 15 Drawing Sheets



JUN 26 2007